

Apparatus and Method for Fabrication of Nanostructures Using Multiple Prongs of Radiating Energy

ABSTRACT

5

In one embodiment, an apparatus for fabricating nanostructure-based devices on workpieces includes: a stage for supporting a workpiece, a radiating-energy source, and a feedstock delivery system. The workpiece has catalyst thereon. The radiating-energy source is configured to focus radiating energy toward a work region of the workpiece to
10 directly heat catalyst at the work region, without directly heating catalyst at one or more other work regions of the workpiece. The feedstock delivery system delivers feedstock gas to the catalyst at the work region. The feedstock delivery system includes a feedstock heating system. The feedstock heating system is configured to heat the feedstock gas not merely by any global heating of the chamber or any direct excitation of
15 gas over the work region by the focused radiating energy. Preferably, the radiating-energy source emits multiple prongs of radiating energy.